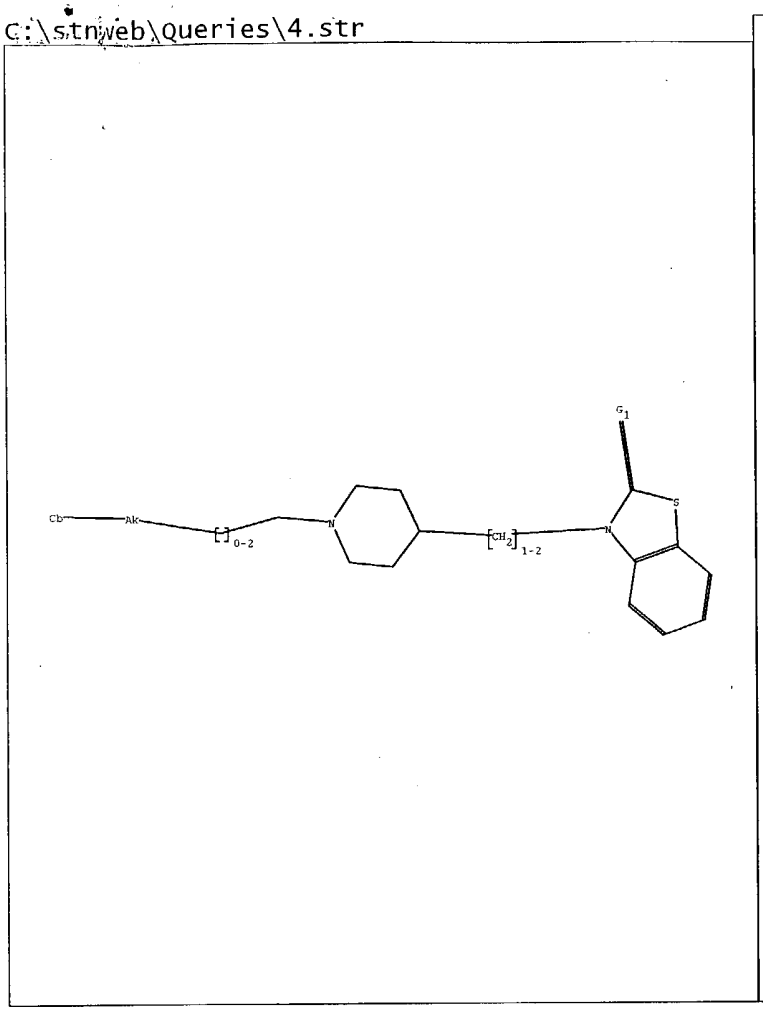
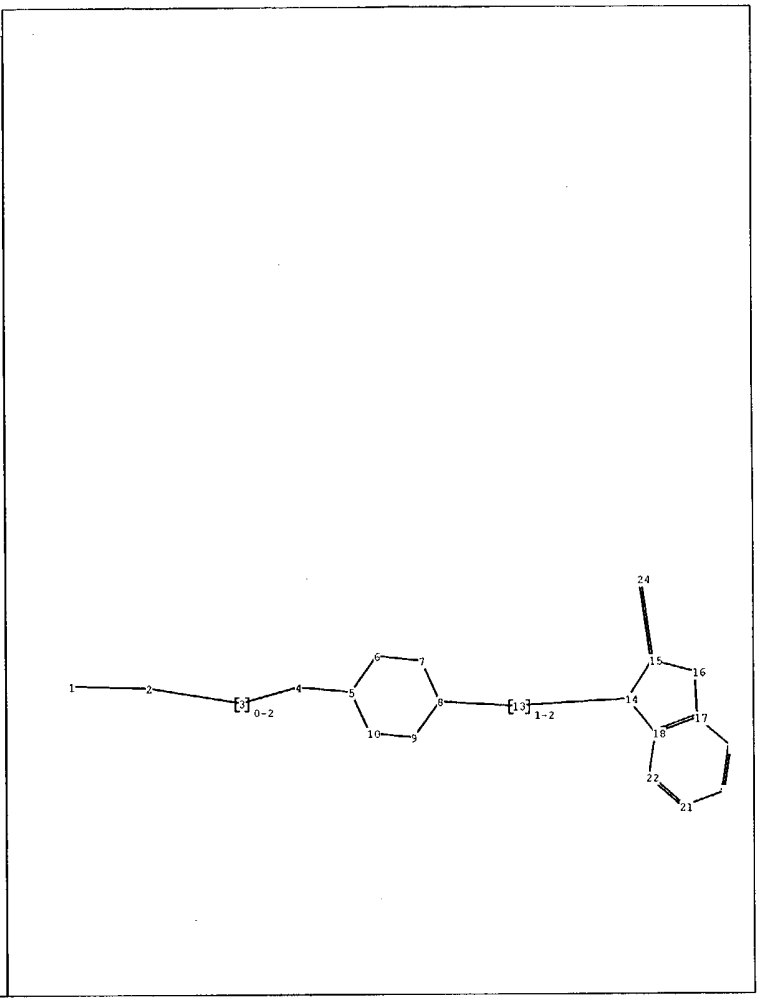
C:\stnweb\queries\4.str





chain nodes :
1 2 3 4 13 24
ring nodes :
5 6 7 8 9 10 14 15 16 17 18 19 20 21 22
chain bonds :
1-2 2-3 3-4 4-5 8-13 13-14 15-24
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10 14-15 14-18 15-16 16-17 17-18 17-19 18-22 19-20
20-21 21-22
exact/norm bonds :
1-2 2-3 4-5 5-6 5-10 6-7 7-8 8-9 9-10 14-15 14-18 15-24
exact bonds :
3-4 8-13 13-14 15-16 16-17
normalized bonds :
17-18 17-19 18-22 19-20 20-21 21-22
isolated ring systems :
containing 14 :

G1:O,S

Match level :
1:Atom 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
24:CLASS

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	Jul 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS 4	AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS 5	AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS 6	AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS 7	AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 8	AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS 9	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS 10	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS 11	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 12	SEP 14	STN Patent Forum to be held October 13, 2004, in Iselin, NJ
NEWS 13	SEP 27	STANDARDS will no longer be available on STN
NEWS 14	SEP 27	SWETSCAN will no longer be available on STN

NEWS EXPRESS	JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:41:29 ON 20 OCT 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	0.42

FILE 'REGISTRY' ENTERED AT 10:42:24 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6
DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

h eb c g cg b cg eb

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR

=> s l1
SAMPLE SEARCH INITIATED 10:45:07 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 5 TO 234
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 10:45:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 107 TO ITERATE

100.0% PROCESSED 107 ITERATIONS 26 ANSWERS
SEARCH TIME: 00.00.01

L3 26 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 157.10 157.52

FILE 'HCAPLUS' ENTERED AT 10:45:15 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

h eb c g cg b cg eb

FILE COVERS 1907 - 20 Oct 2004 VOL 141 ISS 17
FILE LAST UPDATED: 19 Oct 2004 (20041019/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 1 L3

=> d l4, ibib abs fhitstr, 1

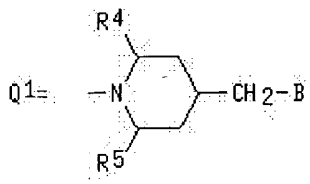
L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

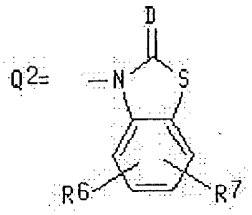
Full Text | Citing References

ACCESSION NUMBER: 1999:311193 HCAPLUS
DOCUMENT NUMBER: 130:338102
TITLE: Preparation of N-(aminoalkyl)- or N-(1-piperidinylmethyl)benzothiazoline derivatives as ligands for sigma-receptor
INVENTOR(S): Rocher, Jean-Philippe; Yamabe, Haruko; Chaki, Haruyuki; Saito, Ken-ichi; Abe, Michikazu; Okuyama, Masahiro
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9923083	A1	19990514	WO 1998-JP4973		19981104
W: CA, CN, KR, US					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
EP 1043319	A1	20001011	EP 1998-951687		19981104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 11217377	A2	19990810	JP 1998-314459		19981105
PRIORITY APPLN. INFO.:			JP 1997-302607	A	19971105
			WO 1998-JP4973	W	19981104

OTHER SOURCE(S): MARPAT 130:338102
GI





h eb c g cg b cg eb

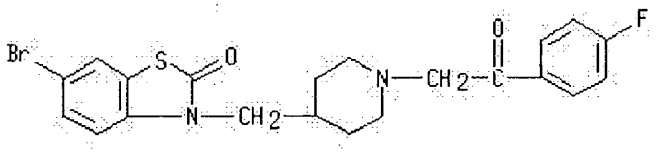
AB Compds. represented by the following formula, such as (R,S)-1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol, or salts thereof: X-Q-C(R1)(R2)-Z [wherein R1 and R2 each represents hydrogen, alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; and Z represents either of groups NR3(CH2)p and Q1; wherein R3 represents alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; p is an integer of 3 to 8; R4 and R5 each represents hydrogen or alkyl or they together with other interposing atoms represent a 5- to 7-membered heterocyclic ring; and B represents formula Q2 (wherein R6 and R7 each represents hydrogen, halogeno, NO2, alkyl, cycloalkyl, alkenyl, haloalkyl, OH, alkoxy, haloalkoxy, alkoxycarbonyl, Ph, (un)substituted NH2, alkylthio, etc.); D represents sulfur, oxygen, or (un)substituted NH; when X represents optionally alkyl-substituted mono- or polycyclic alkyl, cycloalkylalkyl, aryl, or heteroaryl, Q represents CO, C(:NOH), C(Y)(A) (wherein Y represents H, alkyl, alkenyl, alkynyl, etc. and A represent OH, alkoxy, cycloalkoxy, cycloalkylalkoxy, alkenyloxy, aryloxy, etc.); or when X represents a 8- to 10-membered bicyclic heteroaryl contg. 1 or 2 heteroatoms, Q represents single bond], which have high affinity to σ-receptors and exhibit small inhibition consts. Ki against σ-1 and/or σ-2 receptors, are prepd. Also claimed are therapeutics contg. I as the active ingredients for the treatment and/or prevention of diseases caused or enhanced by nerve-regulating effect of σ-ligands. They are useful for the treatment and/or prevention of central nervous system diseases, intestinal diseases, and cardiovascular diseases. Thus, 4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidine was condensed with 1-(bromoacetyl)adamantane in the presence of K2CO3 followed by NaBH4 redn. in ethanol and THF and acidification with HCl in EtOAc to give 1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol hydrochloride (II). II and 3-[[1-[2-(4-fluorophenyl)-2-oxoethyl]-4-piperidinyl]methyl]-5-chloro-2-oxobenzothiazoline hydrochloride inhibited the binding of [H3]-di-o-tolylguanidine to σ-receptor (P2 membrane fraction) prepn. from rat liver with Ki value of 7.0 and 3.1 nM, resp., as compared to Ki of 29 nM for haloperidol. A tablet, an injection, and an ointment formulation contg. II were described.

IT **224443-05-4P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-(aminoalkyl)- or N-(1-piperidinyl)benzothiazoline derivs. having high affinity to sigma-receptor as therapeutics)

RN 224443-05-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-bromo-3-[[1-[2-(4-fluorophenyl)-2-oxoethyl]-4-piperidinyl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



HCl

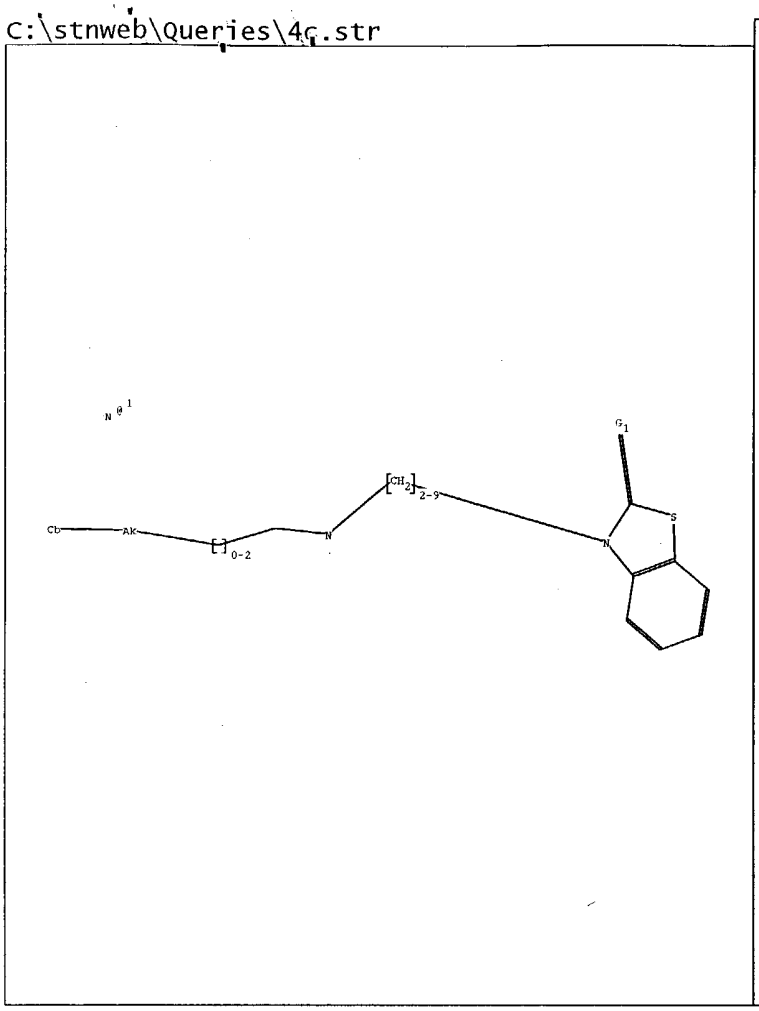
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

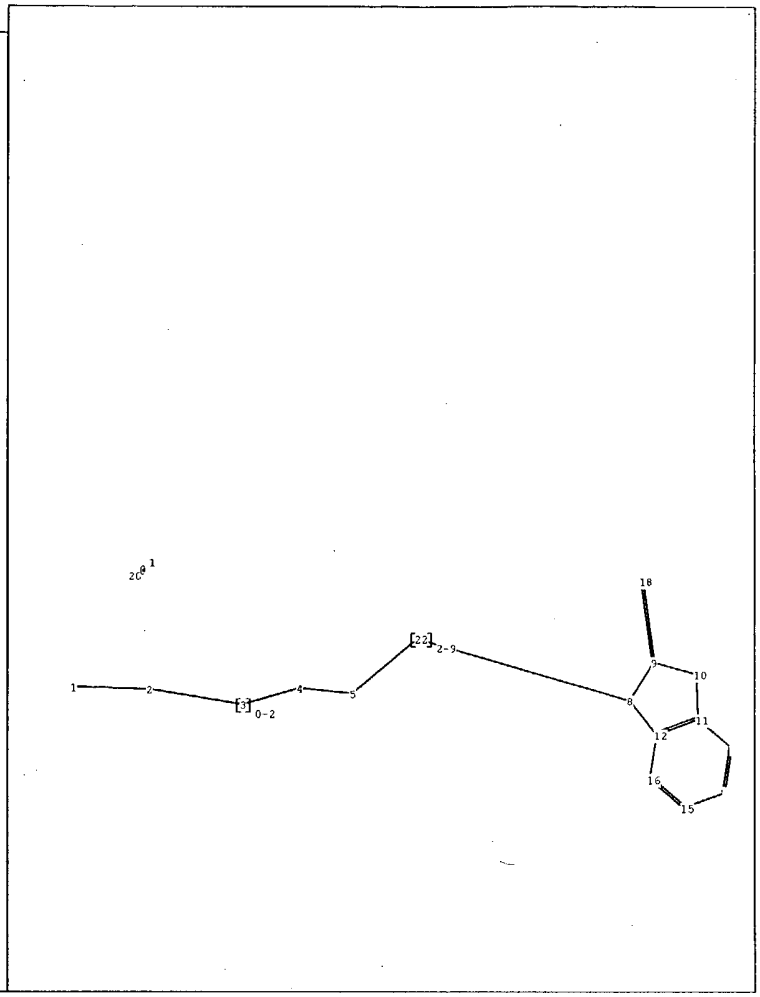
h eb c g cg b cg eb

```
=> file caold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     9.48     167.00

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -0.70      -0.70

FILE 'CAOLD' ENTERED AT 10:46:26 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  This file supports REGISTRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=> d his

     (FILE 'HOME' ENTERED AT 10:41:29 ON 20 OCT 2004)

     FILE 'REGISTRY' ENTERED AT 10:42:24 ON 20 OCT 2004
L1              STRUCTURE UPLOADED
L2            1 S L1
L3           26 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 10:45:15 ON 20 OCT 2004
L4            1 S L3

     FILE 'CAOLD' ENTERED AT 10:46:26 ON 20 OCT 2004

=> s l3
L5            0 L3

=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.42     167.42

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -0.70

STN INTERNATIONAL LOGOFF AT 10:46:39 ON 20 OCT 2004
```

h eb c g cg b cg eb

C:\stnweb\Queries\4c.str



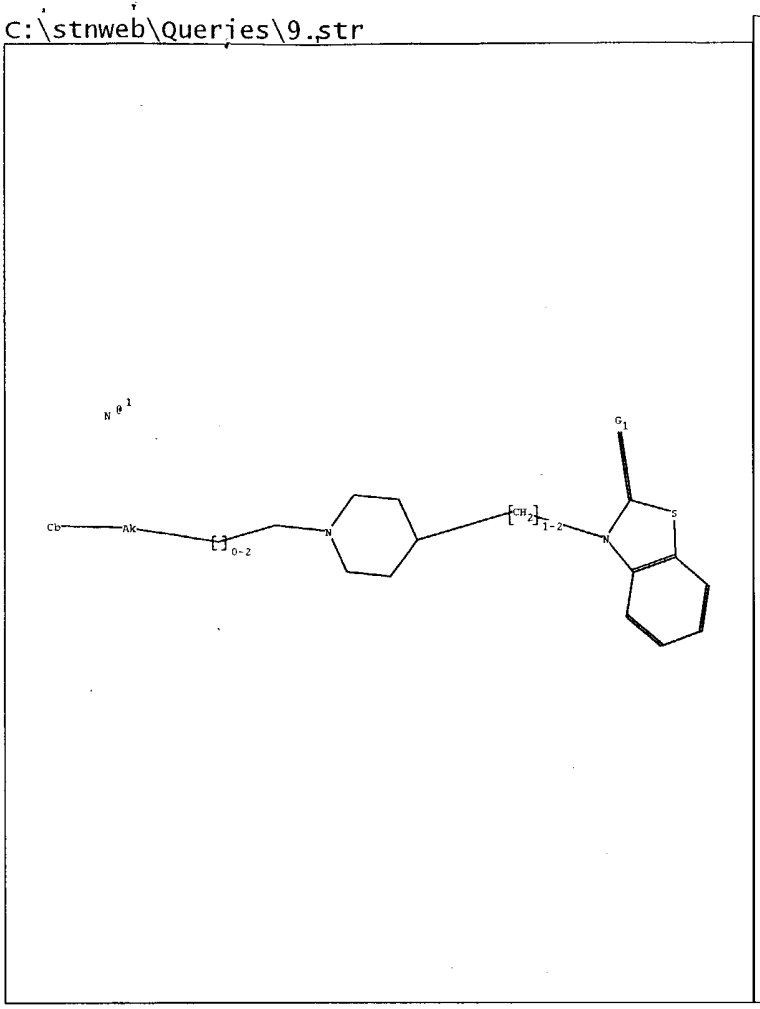


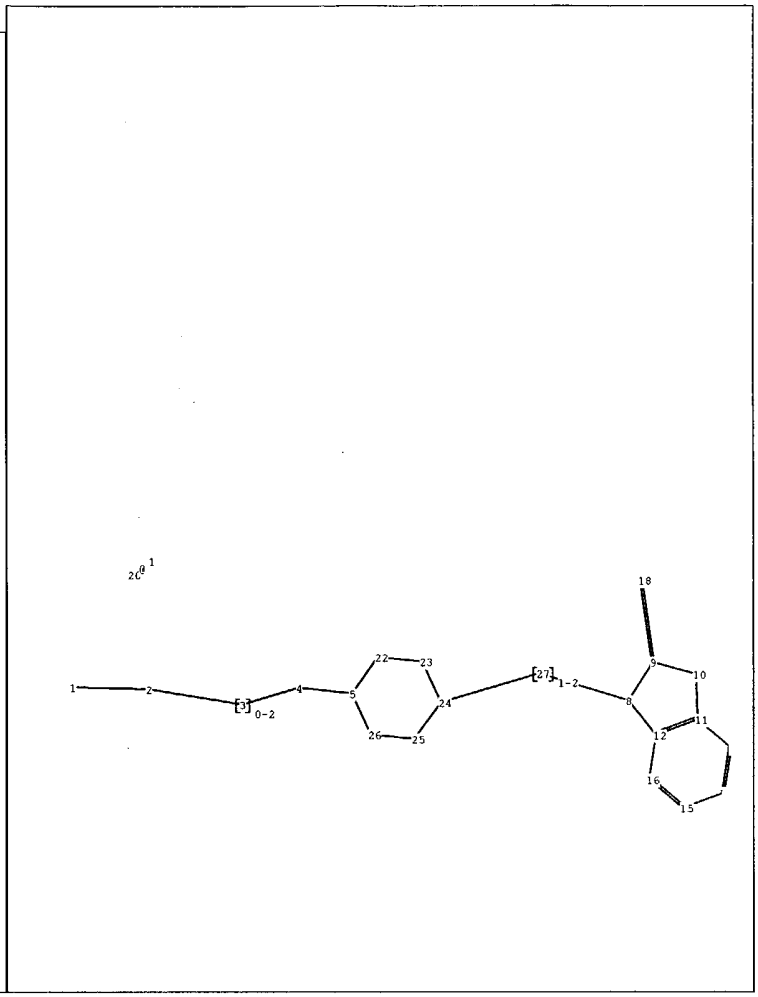
chain nodes :
1 2 3 4 5 18 20 22
ring nodes :
8 9 10 11 12 13 14 15 16
chain bonds :
1-2 2-3 3-4 4-5 5-22 8-22 9-18
ring bonds :
8-12 8-9 9-10 10-11 11-12 11-13 12-16 13-14 14-15 15-16
exact/norm bonds :
1-2 2-3 4-5 8-9 9-18
exact bonds :
3-4 5-22 8-12 8-22 9-10 10-11
normalized bonds :
11-12 11-13 12-16 13-14 14-15 15-16
isolated ring systems :
containing 8 :

G1:O,S,[*1]

Match level :
1:Atom 2:CLASS 3:CLASS 4:CLASS 5:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 18:CLASS 20:CLASS 22:CLASS

C:\stnweb\Queries\9.str





chain nodes :
1 2 3 4 18 20 27
ring nodes :
5 8 9 10 11 12 13 14 15 16 22 23 24 25 26
chain bonds :
1-2 2-3 3-4 4-5 8-27 9-18 24-27
ring bonds :
5-22 5-26 8-12 8-9 9-10 10-11 11-12 11-13 12-16 13-14 14-15 15-16 22-23
23-24 24-25 25-26
exact/norm bonds :
1-2 2-3 4-5 5-22 5-26 8-9 9-18 22-23 23-24 24-25 25-26
exact bonds :
3-4 8-12 8-27 9-10 10-11 24-27
normalized bonds :
11-12 11-13 12-16 13-14 14-15 15-16
isolated ring systems :
containing 8 :

G1:O,S,[*1]

Match level :
1:Atom 2:CLASS 3:CLASS 4:CLASS 5:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 18:CLASS 20:CLASS 22:Atom 23:Atom 24:CLASS
25:Atom 26:Atom 27:CLASS

```
* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  Jul 12   BEILSTEIN enhanced with new display and select options,
                   resulting in a closer connection to BABS
 NEWS  4  AUG 02   IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                   fields
 NEWS  5  AUG 02   CAplus and CA patent records enhanced with European and Japan
                   Patent Office Classifications
 NEWS  6  AUG 02   The Analysis Edition of STN Express with Discover!
                   (Version 7.01 for Windows) now available
 NEWS  7  AUG 27   BIOCOMMERCE: Changes and enhancements to content coverage
 NEWS  8  AUG 27   BIOTECHABS/BIOTECHDS: Two new display fields added for legal
                   status data from INPADOC
 NEWS  9  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS 10  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS 11  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS 12  SEP 27   STANDARDS will no longer be available on STN
 NEWS 13  SEP 27   SWETSCAN will no longer be available on STN

 NEWS EXPRESS  JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:23:10 ON 20 OCT 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 15:23:19 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   19 OCT 2004  HIGHEST RN 765878-56-6
DICTIONARY FILE UPDATES:  19 OCT 2004  HIGHEST RN 765878-56-6
```

h eb c g cg b cg eb

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

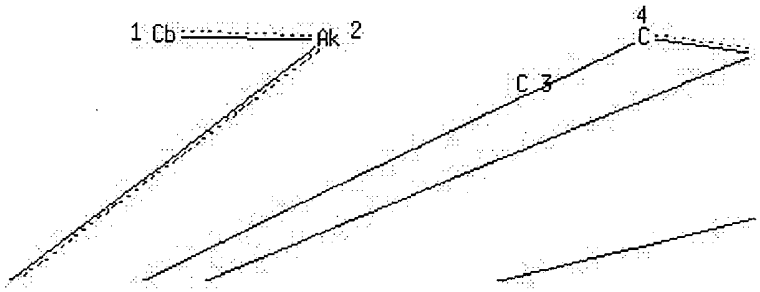
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

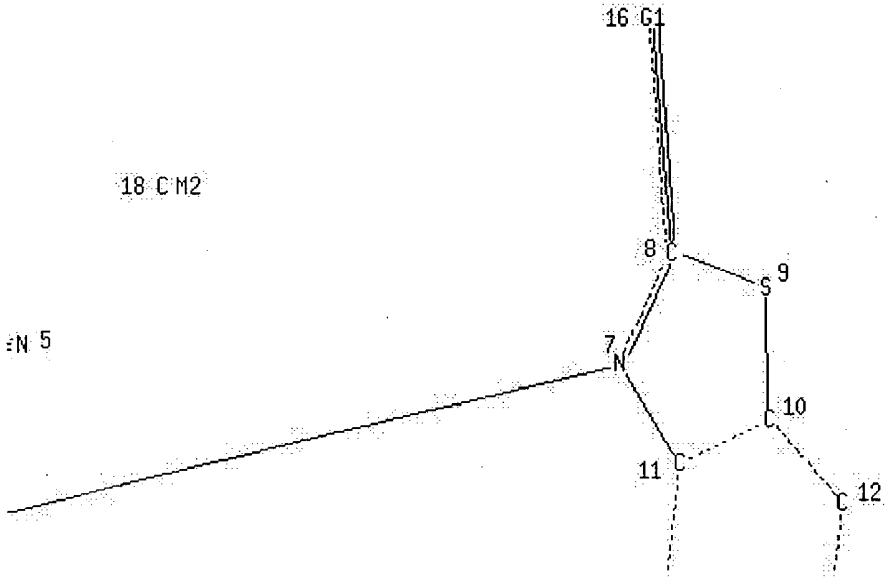
=>
L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR
0 20 S 21

N 17

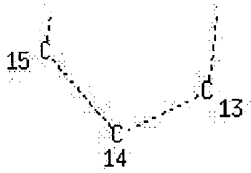


Page 1-A



Page 1-B

Page 2-A



Page 2-B

```
VAR G1=20/21/17
REP G19=(2-9) 18-5 18-7
REP G20=(0-2) 3-2 3-4
NODE ATTRIBUTES:
HCOUNT  IS M2     AT  18
NSPEC   IS C      AT   1
NSPEC   IS C      AT   2
NSPEC   IS C      AT   3
NSPEC   IS C      AT   4
NSPEC   IS C      AT   5
NSPEC   IS C      AT   6
NSPEC   IS R      AT   7
NSPEC   IS R      AT   8
NSPEC   IS R      AT   9
NSPEC   IS R      AT  10
NSPEC   IS R      AT  11
NSPEC   IS R      AT  12
NSPEC   IS R      AT  13
NSPEC   IS R      AT  14
NSPEC   IS R      AT  15
NSPEC   IS C      AT  16
NSPEC   IS C      AT  17
NSPEC   IS C      AT  18
```

h eb c g cg b cg eb

```
NSPEC   IS C      AT  19
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT   2  3  4 17 18 20 21
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE


=> s l1
SAMPLE SEARCH INITIATED 15:27:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    131 TO ITERATE

100.0% PROCESSED     131 ITERATIONS                              0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          1934 TO     3306
PROJECTED ANSWERS:                0 TO        0

L2             0 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:27:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   2447 TO ITERATE

100.0% PROCESSED    2447 ITERATIONS                             6 ANSWERS
SEARCH TIME: 00.00.01

L3             6 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              157.94     158.15

FILE 'HCAPLUS' ENTERED AT 15:27:35 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 20 Oct 2004  VOL 141 ISS 17
FILE LAST UPDATED: 19 Oct 2004  (20041019/ED)
```

h eb c g cg b cg eb

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l3
L4            5 L3

=> s l4 and rocher, j?/au
             75 ROCHER, J?/AU
L5            1 L4 AND ROCHER, J?/AU

=> d l5, ibib abs fhitstr, 1
```

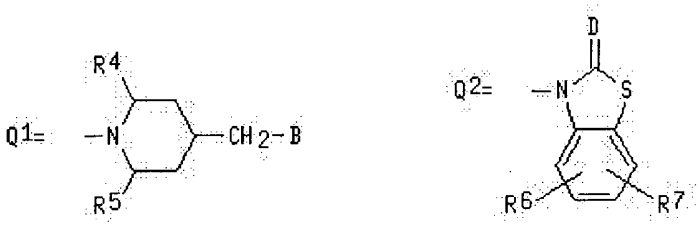
L5 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Other References

ACCESSION NUMBER: 1999:311193 HCAPLUS
DOCUMENT NUMBER: 130:338102
TITLE: Preparation of N-(aminoalkyl)- or N-(1-piperidinylmethyl)benzothiazoline derivatives as ligands for sigma-receptor
INVENTOR(S): **Rocher, Jean-Philippe**; Yamabe, Haruko; Chaki, Haruyuki; Saito, Ken-ichi; Abe, Michikazu; Okuyama, Masahiro
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9923083	A1	19990514	WO 1998-JP4973		19981104
W: CA, CN, KR, US					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
EP 1043319	A1	20001011	EP 1998-951687		19981104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 11217377	A2	19990810	JP 1998-314459		19981105
PRIORITY APPLN. INFO.:			JP 1997-302607	A	19971105
			WO 1998-JP4973	W	19981104

OTHER SOURCE(S): MARPAT 130:338102
GI



AB Compds. represented by the following formula, such as (R,S)-1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol, or salts thereof: X-Q-C(R1)(R2)-Z [wherein R1 and R2 each

h eb c g cg b cg eb

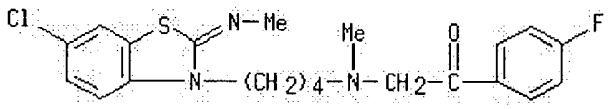
represents hydrogen, alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; and Z represents either of groups NR3(CH2)p and Q1; wherein R3 represents alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; p is an integer of 3 to 8; R4 and R5 each represents hydrogen or alkyl or they together with other interposing atoms represent a 5- to 7-membered heterocyclic ring; and B represents formula Q2 (wherein R6 and R7 each represents hydrogen, halogeno, NO2, alkyl, cycloalkyl, alkenyl, haloalkyl, OH, alkoxy, haloalkoxy, alkoxycarbonyl, Ph, (un)substituted NH2, alkylthio, etc.); D represents sulfur, oxygen, or (un)substituted NH; when X represents optionally alkyl-substituted mono- or polycyclic alkyl, cycloalkylalkyl, aryl, or heteroaryl, Q represents CO, C(:NOH), C(Y)(A) (wherein Y represents H, alkyl, alkenyl, alkynyl, etc. and A represent OH, alkoxy, cycloalkoxy, cycloalkylalkoxy, alkenyloxy, aryloxy, etc.); or when X represents a 8- to 10-membered bicyclic heteroaryl contg. 1 or 2 heteroatoms, Q represents single bond], which have high affinity to σ-receptors and exhibit small inhibition consts. Ki against σ-1 and/or σ-2 receptors, are prepd. Also claimed are therapeutics contg. I as the active ingredients for the treatment and/or prevention of diseases caused or enhanced by nerve-regulating effect of σ-ligands. They are useful for the treatment and/or prevention of central nervous system diseases, intestinal diseases, and cardiovascular diseases. Thus, 4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidine was condensed with 1-(bromoacetyl)adamantane in the presence of K2CO3 followed by NaBH4 redn. in ethanol and THF and acidification with HCl in EtOAc to give 1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol hydrochloride (II). II and 3-[[1-[2-(4-fluorophenyl)-2-oxoethyl]-4-piperidinyl]methyl]-5-chloro-2-oxobenzothiazoline hydrochloride inhibited the binding of [H3]-di-o-tolylguanidine to σ-receptor (P2 membrane fraction) prepn. from rat liver with Ki value of 7.0 and 3.1 nM, resp., as compared to Ki of 29 nM for haloperidol. A tablet, an injection, and an ointment formulation contg. II were described.

IT **224443-03-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-(aminoalkyl)- or N-(1-piperidinyl)benzothiazoline derivs. having high affinity to sigma-receptor as therapeutics)

RN 224443-03-2 HCAPLUS

CN Ethanone, 2-[[4-[6-chloro-2-(methylimino)-3(2H)-benzothiazolyl]butyl]methylamino]-1-(4-fluorophenyl)-, dihydrochloride (9CI) (CA INDEX NAME)



• 2 HCl

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 15:23:10 ON 20 OCT 2004)

h eb c g cg b cg eb

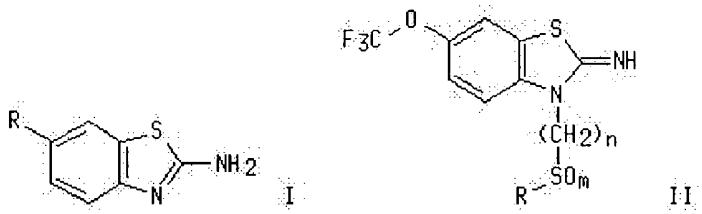
```
     FILE 'REGISTRY' ENTERED AT 15:23:19 ON 20 OCT 2004
L1                STRUCTURE UPLOADED
L2              0 S L1
L3              6 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 15:27:35 ON 20 OCT 2004
L4              5 S L3
L5              1 S L4 AND ROCHER, J?/AU

=> s l4 not l5
L6              4 L4 NOT L5

=> s l6 and yamabe, h?/au
            210 YAMABE, H?/AU
L7              0 L6 AND YAMABE, H?/AU

=> s l6 and chaki, h?/au
             75 CHAKI, H?/AU
L8              0 L6 AND CHAKI, H?/AU

=> s l6 and saito, k?/au
          10891 SAITO, K?/AU
L9              0 L6 AND SAITO, K?/AU

=> s l6 and abe, m?/au
           5573 ABE, M?/AU
L10             0 L6 AND ABE, M?/AU

=> s l6 and okuyama, m?/au
           1001 OKUYAMA, M?/AU
L11             0 L6 AND OKUYAMA, M?/AU

=> d l6, ibib abs fhitstr, 1-6

L6   ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2004 ACS on STN
```

Full Text | Other References

ACCESSION NUMBER: 1999:420020 HCAPLUS
DOCUMENT NUMBER: 131:144528
TITLE: Riluzole Series. Synthesis and in Vivo "Antiglutamate" Activity of 6-Substituted-2-benzothiazolamines and 3-Substituted-2-imino-benzothiazolines
AUTHOR(S): Jimonet, Patrick; Audiau, Francois; Barreau, Michel; Blanchard, Jean-Charles; Boireau, Alain; Bour, Yvette; Coleno, Marie-Annick; Doble, Adam; Doerflinger, Gilles; Do Huu, Claudine; Donat, Marie-Helene; Duchesne, Jean Marie; Ganil, Pierre; Gueremy, Claude; Honore, Eliane; Just, Bernard; Kerphirique, Roselyne; Gontier, Sylvie; Hubert, Philippe; Laduron, Pierre M.; Le Blevec, Joseph; Meunier, Mireille; Miquet, Jean-Marie; Nemecek, Conception; Pasquet, Martine; Piot, Odile; Pratt, Jeremy; Rataud, Jean; Reibaud, Michel; Stutzmann, Jean-Marie; Mignani, Serge
CORPORATE SOURCE: Centre de Recherche de Vitry-Alfortville, Rhone-Poulenc S.A. Rhone-Poulenc Rorer, Vitry-sur-Seine, F 94403, Fr.
SOURCE: Journal of Medicinal Chemistry (1999), 42(15), 2828-2843
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society

h eb c g cg b cg eb

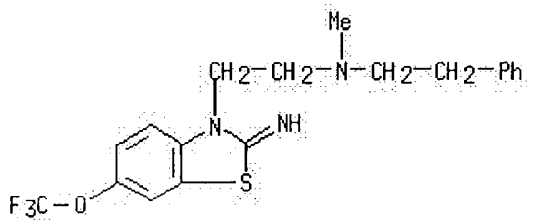
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Two series of analogs of riluzole, a blocker of excitatory amino acid mediated neurotransmission, have been synthesized: monosubstituted 2-benzothiazolamines and 3-substituted derivs. Of all the compds. prepd. in the first series, only 2-benzothiazolamines bearing alkyl, polyfluoroalkyl, or polyfluoroalkoxy substituents in the 6-position showed potent anticonvulsant activity against administration of glutamic acid in rats. The most active compds. displaying in vivo antiglutamate activity were benzothiazolamines I [R = F3CO (riluzole), F3CCF2O, F3C, F3CCF2] with ED50 values between 2.5 and 3.2 mg/kg i.p. Among the second series of variously substituted benzothiazolines, compds. as active as riluzole or up to 3 times more potent were identified in two series: benzothiazolines bearing a β-dialkylaminoethyl moiety and compds. with an alkylthioalkyl chain and their corresponding sulfoxides and sulfones. The most potent derivs. were II [R = Me, m = 0, n = 2; R = Me, m = 1, n = 2] with ED50 = 1.0 and 1.1 mg/kg i.p., resp.. In addn., i.p. administration of some of the best benzothiazolines protected mice from mortality produced by hypobaric hypoxia.

IT **139362-28-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of benzothiazolamines and iminobenzothiazolines as anticonvulsant agents)

RN 139362-28-0 HCAPLUS
CN 3(2H)-Benzothiazoleethanamine, 2-imino-N-methyl-N-(2-phenylethyl)-6-(trifluoromethoxy)-, dihydrochloride (9CI) (CA INDEX NAME)



2 HCl

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

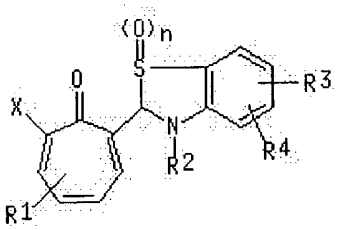
ACCESSION NUMBER: 1993:191730 HCAPLUS

h eb c g cg b cg eb

DOCUMENT NUMBER: 118:191730
TITLE: Preparation of benzothiazolinyltropolones for treatment of ischemia.
INVENTOR(S): McWhoster, William W.; Ito, Noriie; Ozawa, Kazunori; Kushida, Hiroshi; Nomura, Toshiharu; Kunihara, Mineo
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04247077	A2	19920903	JP 1991-56252	19910131
CA 2087004	AA	19920301	CA 1991-2087004	19910827
CA 2087004	C	19980421		
EP 546102	A1	19930616	EP 1991-917948	19910827
EP 546102	B1	19971015		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 65943	A2	19940829	HU 1993-533	19910827
JP 06509318	T2	19941020	JP 1991-516629	19910827
JP 2512656	B2	19960703		
AT 159251	E	19971115	AT 1991-917948	19910827
ES 2109276	T3	19980116	ES 1991-917948	19910827
NO 9300669	A	19930225	NO 1993-669	19930225
US 5594144	A	19970114	US 1995-442710	19950518
US 5703071	A	19971230	US 1995-443972	19950518
PRIORITY APPLN. INFO.:			JP 1990-229536	19900829
			JP 1991-56252	19910131
			JP 1991-39173	19910208
			WO 1991-US5906	19910827
			US 1993-975924	19930218

OTHER SOURCE(S): MARPAT 118:191730
GI



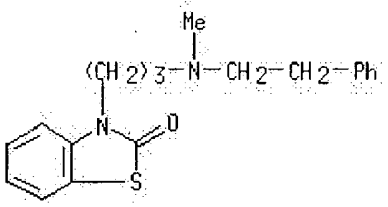
I

AB The title compds. [I; R1 = H, alkyl, (un)substituted aryl; R2 = H, alkyl, etc.; R3, R4 = H, alkyl, halo, OH, alkoxy, etc.; X = OH, alkoxy, etc.; n = 0, 1, 2] were prepd. E.g., 2-[(2-phenylethyl)amino]thiophenol (prepn. given) was refluxed with 2-methoxy-4-isopropyl-7-formyl-2,4,6-cycloheptatrien-1-one in toluene for 17 H to give I [X = MeO, R1 = 5'-iso-Pr, R2 = PhCH2CH2, R3 = R4 = H, n = 0]. At 0.1 mg/Kg i.p. this showed 50% effectiveness in counteracting brain ischemic rats in a learning study using rats.

IT **142224-30-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for benzothiazolinyltropolones for

h eb c g cg b cg eb

treatment of ischemia)
RN 142224-30-4 HCAPLUS
CN 2(3H)-Benzothiazolone, 3-[3-[methyl(2-phenylethyl)amino]propyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

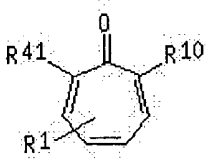
Full Text | Citing References

ACCESSION NUMBER: 1992:531223 HCAPLUS
DOCUMENT NUMBER: 117:131223
TITLE: Preparation of heterocyclyltropolones as ischemia inhibitors
INVENTOR(S): Ito, Noriie; Kunihara, Mineo; Kushida, Hiroshi; McWhoster, William W.; Nomura, Syunji; Ozawa, Kazunori; Taniguchi, Mikeo; Tsuzuki, Tazuo
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

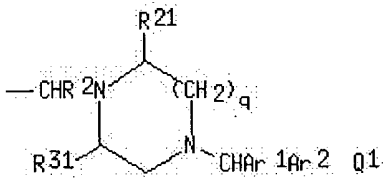
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9204338	A1	19920319	WO 1991-US5906	19910827
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MC, MG, MN, MW, NO, PL, RO, SD, SU, US				
RW: AT, BE, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN				
JP 04120069	A2	19920421	JP 1990-229536	19900829
AU 9187203	A1	19920330	AU 1991-87203	19910827
AU 651629	B2	19940728		
EP 546102	A1	19930616	EP 1991-917948	19910827
EP 546102	B1	19971015		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 65943	A2	19940829	HU 1993-533	19910827
JP 06509318	T2	19941020	JP 1991-516629	19910827
JP 2512656	B2	19960703		
NO 9300669	A	19930225	NO 1993-669	19930225
PRIORITY APPLN. INFO.:			JP 1990-229536	19900829
			JP 1991-56252	19910131
			JP 1991-39173	19910208
			WO 1991-US5906	19910827

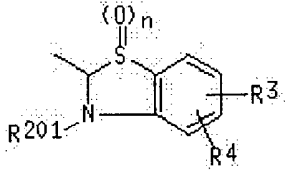
OTHER SOURCE(S): MARPAT 117:131223
GI

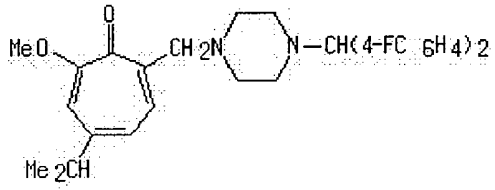
h eb c g cg b cg eb



I







II

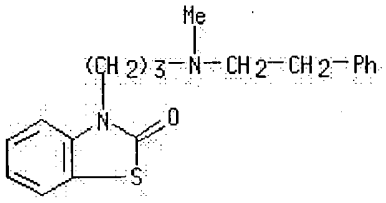
AB Title compds. I [R10 = Q1, Q2; R1, R2 = H, C1-5 alkyl, (substituted) aryl, (substituted) hetercyclyl; R3, R4 = H, (substituted) C1-5 alkyl, C7-20 aralkyl, C7-20 aralkyl contg. O, S, or N atoms; halo, OH, C1-5 alkoxy, cyano, etc.; R41 = OR3, OR6, NR7R8, etc.; R6 = H, (substituted) C1-5 alkyl, etc.; R7, R8 = H, (substituted) C1-5 alkyl, C7-20 aralkyl which may contain O, S, or N atoms; NR7R8 = 5-7 membered ring which may contain addnl. O or N atoms; R21, R31 = H, C1-3 alkyl; R201 = H, C1-5 alkyl, C2-20 aralkyl, C6-10 arylsulfonyl, C6-10 arylsulfonyl contg. O, S, or N atoms; Ar1, Ar2 = (substituted) aryl; n = 0-2; q = 1-2], were prepd. Thus, a soln. of 7-chloromethyl-4-isopropyl-2-methoxy-4-isopropyl-2,4,6-cycloheptatrien-1-one (prepn. given), 1-(4,4'-difluorobenzhydryl)piperazine, and Et3N in CHCl3 was refluxed for 20 h to give title compd. II. II had minimal ED of <5 mg/kg i.v. in a ischemic heart/reperfusion test in rats.

IT **142224-30-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for ischemia inhibitors)

RN 142224-30-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-[3-[methyl(2-phenylethyl)amino]propyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

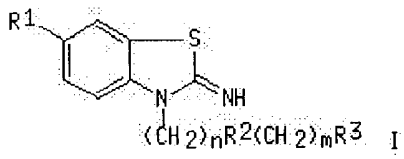
ACCESSION NUMBER:	1992:128911 HCAPLUS
DOCUMENT NUMBER:	116:128911
TITLE:	Benzothiazoline derivatives, process for their preparation, and drugs containing them
INVENTOR(S):	Gueremy, Claude; Jimonet, Patrick; Mignani, Serge
PATENT ASSIGNEE(S):	Rhone-Poulenc Rorer SA, Fr.
SOURCE:	PCT Int. Appl., 29 pp.

h eb c g cg b cg eb

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9118892	A1	19911212	WO 1991-FR437	19910531
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
FR 2663029	A1	19911213	FR 1990-7068	19900607
FR 2663029	B1	19920731		
CA 2080005	AA	19911208	CA 1991-2080005	19910531
EP 532602	A1	19930324	EP 1991-910896	19910531
EP 532602	B1	19940803		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05507918	T2	19931111	JP 1991-510727	19910531
ES 2057901	T3	19941016	ES 1991-910896	19910531
US 5340824	A	19940823	US 1992-938153	19921202
PRIORITY APPLN. INFO.:			FR 1990-7068	19900607
			WO 1991-FR437	19910531

OTHER SOURCE(S): MARPAT 116:128911
GI



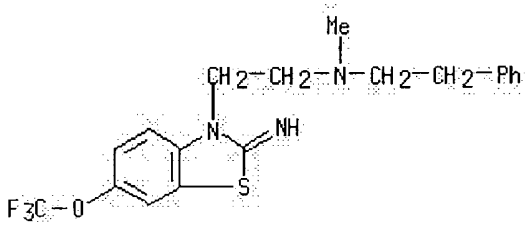
I

AB Benzothiazolines I [R1 = polyfluoroalkoxy; R2 = S, alkylimino, SO, SO2; R3 = Ph, Bz, NR4R5, 1-(phenylalkyl)-4-piperidinyl; R4 = alkyl; R5 = phenylalkyl; n = 1-3; m = 0-3] and salts are prepd. as drugs for treating convulsions, schizophrenia, sleep disorders, cerebral ischemic phenomena, glutamate-related neurol. disorders, Alzheimer's disease (no data). For example, thioetherification of PhCH2NMeCH2CH2SH with 2-[2-(trifluoroacetylimino)-6-(trifluoromethoxy)-3-benzothiazolinyl]ethyl p-toluenesulfonate (prepd. in 3 steps) and subsequent salification gave I (R1 = CF3O, R2 = S, R3 = NMeCH2Ph, n = m = 2) as the dioxalate salt. Nine syntheses and 3 formulations are described.

IT **139362-28-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as neurol. drug)

RN 139362-28-0 HCAPLUS
CN 3(2H)-Benzothiazoleethanamine, 2-imino-N-methyl-N-(2-phenylethyl)-6-(trifluoromethoxy)-, dihydrochloride (9CI) (CA INDEX NAME)

h eb c g cg b cg eb



2 HCl

=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	28.52	186.67

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.50	-3.50

FILE 'CAOLD' ENTERED AT 15:28:46 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGistRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

(FILE 'HOME' ENTERED AT 15:23:10 ON 20 OCT 2004)

FILE 'REGISTRY' ENTERED AT 15:23:19 ON 20 OCT 2004
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 6 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:27:35 ON 20 OCT 2004
L4 5 S L3
L5 1 S L4 AND ROCHER, J?/AU
L6 4 S L4 NOT L5
L7 0 S L6 AND YAMABE, H?/AU
L8 0 S L6 AND CHAKI, H?/AU
L9 0 S L6 AND SAITO, K?/AU
L10 0 S L6 AND ABE, M?/AU
L11 0 S L6 AND OKUYAMA, M?/AU

h eb c g cg b cg eb

FILE 'CAOLD' ENTERED AT 15:28:46 ON 20 OCT 2004

=> s l3
L12 0 L3

=> file reg
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.42 187.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -3.50

FILE 'REGISTRY' ENTERED AT 15:28:52 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6
DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

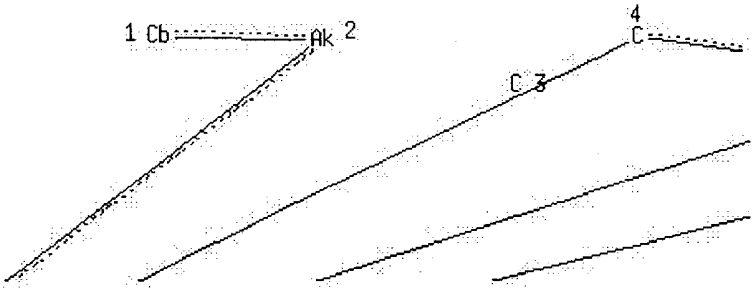
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L13 STRUCTURE UPLOADED

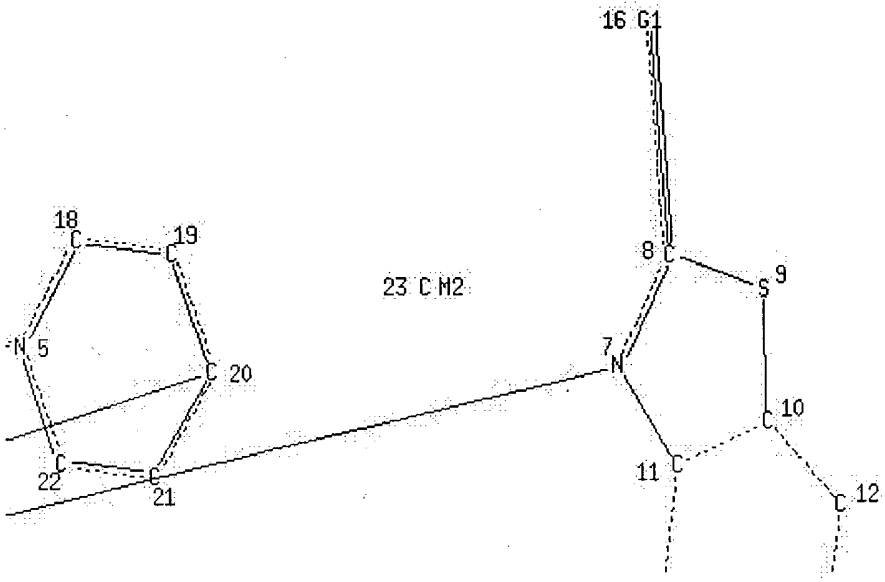
=> d l13
L13 HAS NO ANSWERS
L13 STR

0 25 S 26

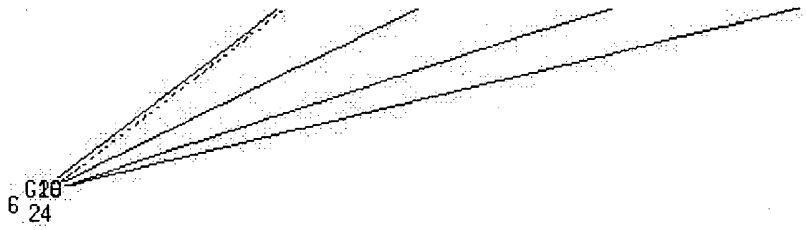
N 17



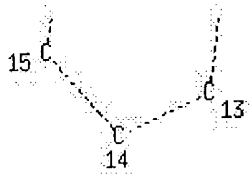
Page 1-A



Page 1-B



Page 2-A



h eb c g cg b cg eb

```
Page 2-B
VAR G1=25/26/17
REP G19=(1-2) 23-20 23-7
REP G20=(0-2) 3-2 3-4
NODE ATTRIBUTES:
HCOUNT  IS M2      AT  23
NSPEC   IS C       AT   1
NSPEC   IS C       AT   2
NSPEC   IS C       AT   3
NSPEC   IS C       AT   4
NSPEC   IS R       AT   5
NSPEC   IS C       AT   6
NSPEC   IS R       AT   7
NSPEC   IS R       AT   8
NSPEC   IS R       AT   9
NSPEC   IS R       AT  10
NSPEC   IS R       AT  11
NSPEC   IS R       AT  12
NSPEC   IS R       AT  13
NSPEC   IS R       AT  14
NSPEC   IS R       AT  15
NSPEC   IS C       AT  16
NSPEC   IS C       AT  17
NSPEC   IS R       AT  18
NSPEC   IS R       AT  19
NSPEC   IS R       AT  20
NSPEC   IS R       AT  21
NSPEC   IS R       AT  22
NSPEC   IS C       AT  23
NSPEC   IS C       AT  24
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT   2  3  4 17 20 23 25 26
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   7
NUMBER OF NODES IS  26

STEREO ATTRIBUTES: NONE


=> s l13
SAMPLE SEARCH INITIATED 15:30:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     11 TO ITERATE

100.0% PROCESSED      11 ITERATIONS                          3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           22 TO      418
PROJECTED ANSWERS:               3 TO      163

L14           3 SEA SSS SAM L13

=> s l13 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 15:30:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    215 TO ITERATE
```

100.0% PROCESSED 215 ITERATIONS 89 ANSWERS
SEARCH TIME: 00.00.01

L15 89 SEA SSS FUL L13

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	156.26	343.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-3.50

FILE 'HCAPLUS' ENTERED AT 15:30:52 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 20 Oct 2004 VOL 141 ISS 17
FILE LAST UPDATED: 19 Oct 2004 (20041019/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l15
L16 1 L15

=> d l16, ibib abs fhitstr, 1

L16 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1999:311193 HCAPLUS
DOCUMENT NUMBER: 130:338102
TITLE: Preparation of N-(aminoalkyl)- or N-(1-piperidinylmethyl)benzothiazoline derivatives as ligands for sigma-receptor
INVENTOR(S): Rocher, Jean-Philippe; Yamabe, Haruko; Chaki, Haruyuki; Saito, Ken-ichi; Abe, Michikazu; Okuyama, Masahiro
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

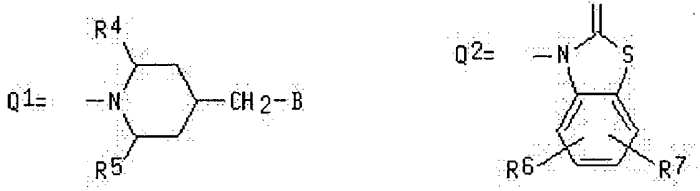
h eb c g cg b cg eb

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9923083	A1	19990514	WO 1998-JP4973		19981104
W: CA, CN, KR, US					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
EP 1043319	A1	20001011	EP 1998-951687		19981104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 11217377	A2	19990810	JP 1998-314459		19981105
PRIORITY APPLN. INFO.:			JP 1997-302607	A	19971105
			WO 1998-JP4973	W	19981104

OTHER SOURCE(S): MARPAT 130:338102

GI



AB Compds. represented by the following formula, such as (R,S)-1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol, or salts thereof: X-Q-C(R1)(R2)-Z [wherein R1 and R2 each represents hydrogen, alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; and Z represents either of groups NR3(CH2)p and Q1; wherein R3 represents alkyl, cycloalkyl, hydroxyalkyl, or alkenyl; p is an integer of 3 to 8; R4 and R5 each represents hydrogen or alkyl or they together with other interposing atoms represent a 5- to 7-membered heterocyclic ring; and B represents formula Q2 (wherein R6 and R7 each represents hydrogen, halogeno, NO2, alkyl, cycloalkyl, alkenyl, haloalkyl, OH, alkoxy, haloalkoxy, alkoxycarbonyl, Ph, (un)substituted NH2, alkylthio, etc.); D represents sulfur, oxygen, or (un)substituted NH; when X represents optionally alkyl-substituted mono- or polycyclic alkyl, cycloalkylalkyl, aryl, or heteroaryl, Q represents CO, C(:NOH), C(Y)(A) (wherein Y represents H, alkyl, alkenyl, alkynyl, etc. and A represent OH, alkoxy, cycloalkoxy, cycloalkylalkoxy, alkenyloxy, aryloxy, etc.); or when X represents a 8- to 10-membered bicyclic heteroaryl contg. 1 or 2 heteroatoms, Q represents single bond], which have high affinity to σ-receptors and exhibit small inhibition consts. Ki against σ-1 and/or σ-2 receptors, are prepd. Also claimed are therapeutics contg. I as the active ingredients for the treatment and/or prevention of diseases caused or enhanced by nerve-regulating effect of σ-ligands. They are useful for the treatment and/or prevention of central nervous system diseases, intestinal diseases, and cardiovascular diseases. Thus, 4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidine was condensed with 1-(bromoacetyl)adamantane in the presence of K2CO3 followed by NaBH4 redn. in ethanol and THF and acidification with HCl in EtOAc to give 1-(1-adamantyl)-2-[4-(6-chloro-2-iminobenzothiazolin-3-ylmethyl)piperidin-1-yl]ethanol hydrochloride (II). II and 3-[[1-[2-(4-fluorophenyl)-2-oxoethyl]-4-piperidinyl]methyl]-5-chloro-2-oxobenzothiazoline hydrochloride inhibited the binding of [H3]-di-o-tolylguanidine to σ-receptor (P2 membrane fraction) prepn. from rat liver with Ki value of 7.0 and 3.1 nM, resp., as compared to Ki of 29 nM for

h eb c g cg b cg eb

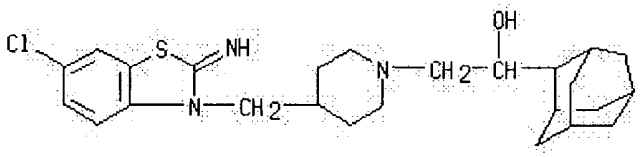
haloperidol. A tablet, an injection, and an ointment formulation contg. II were described.

IT **224442-60-8P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-(aminoalkyl)- or N-(1-piperidinyl)benzothiazoline derivs. having high affinity to sigma-receptor as therapeutics)

RN 224442-60-8 HCAPLUS

CN 1-Piperidineethanol, 4-[(6-chloro-2-imino-3(2H)-benzothiazolyl)methyl]-α-tricyclo[3.3.1.13,7]dec-2-yl-, dihydrochloride (9CI) (CA INDEX NAME)



2 HCl

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.12	350.47

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.70	-4.20

FILE 'CAOLD' ENTERED AT 15:31:06 ON 20 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

(FILE 'HOME' ENTERED AT 15:23:10 ON 20 OCT 2004)

FILE 'REGISTRY' ENTERED AT 15:23:19 ON 20 OCT 2004

h eb c g cg b cg eb

```
L1              STRUCTURE UPLOADED
L2            0 S L1
L3            6 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 15:27:35 ON 20 OCT 2004
L4            5 S L3
L5            1 S L4 AND ROCHER, J?/AU
L6            4 S L4 NOT L5
L7            0 S L6 AND YAMABE, H?/AU
L8            0 S L6 AND CHAKI, H?/AU
L9            0 S L6 AND SAITO, K?/AU
L10           0 S L6 AND ABE, M?/AU
L11           0 S L6 AND OKUYAMA, M?/AU

     FILE 'CAOLD' ENTERED AT 15:28:46 ON 20 OCT 2004
L12           0 S L3

     FILE 'REGISTRY' ENTERED AT 15:28:52 ON 20 OCT 2004
L13             STRUCTURE UPLOADED
L14           3 S L13
L15          89 S L13 FULL

     FILE 'HCAPLUS' ENTERED AT 15:30:52 ON 20 OCT 2004
L16           1 S L15

     FILE 'CAOLD' ENTERED AT 15:31:06 ON 20 OCT 2004

=> s l15
L17           0 L15

=>
```

h eb c g cg b cg eb